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Course Overview

Course Details

Course Name: CodeIgniter 4: The Practical Guide to Rapid PHP Development

Instructor: Kenji Tanaka

Created On: 16 June, 2025

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Price: 6000 INR

Duration: 5 Weeks

Modules: 11

Language: English, Hindi

Level: Intermediate

Certifications: Yes

Course Description

Discover the power and simplicity of CodeIgniter 4, a PHP framework renowned for its small footprint, exceptional performance, and clear documentation. This course is your complete guide to building full-featured web applications with a framework that gets out of your way and lets you code.

We start with the basics, from installation and configuration to understanding the core MVC (Model-View-Controller) architecture. You will learn how to handle routing, controllers, and views effectively. The curriculum places a strong emphasis on practical skills, covering database operations with the powerful Query Builder and Models, secure form validation, and

robust security features.

You'll also learn how to use CodeIgniter's rich set of libraries and helpers to speed up development, manage user sessions, implement caching for performance, and handle file uploads efficiently. Advanced modules cover utilizing command-line tools (spark), managing application state with sessions, and extending the framework with filters and your own custom code. Throughout the course, you'll learn about error handling, logging, and best practices for writing clean, maintainable code. By the end, you'll have built a complete, database-driven web application and learned how to deploy it.

What You'll Learn:

- CodeIgniter 4 installation, configuration, and understanding its MVC architecture.
- Mastering routing, controllers, views, and data passing.
- In-depth database operations using the Query Builder and Eloquent-like Models.
- Creating and validating secure forms with built-in validation library and custom rules.
- Utilizing helpers and libraries for rapid development.
- Implementing core security features to prevent common web vulnerabilities (XSS, CSRF).
- Managing user sessions and applying caching for performance.
- Handling file uploads and email sending.
- Effective error handling, logging, and debugging.
- Using CodeIgniter's command-line tool (spark) and extending the framework with filters and hooks.
- Structuring and deploying a CodeIgniter 4 project to a live server.

Who Is This Course For?

This course is for PHP developers who want a fast, no-nonsense framework to build applications quickly. It's an excellent choice for those who find larger frameworks too complex and appreciate performance and simplicity. It's ideal for beginners to PHP frameworks, intermediate PHP developers, and anyone looking to efficiently build modern web applications.

Prerequisites:

- **Solid PHP Fundamentals:** A strong understanding of PHP syntax, variables, data types, control structures, functions, arrays, and basic OOP concepts (classes, objects).
- **Basic HTML & CSS:** Understanding of web page structure and styling.

- **Basic MySQL/Database Knowledge:** Familiarity with basic SQL queries (CRUD) and database concepts.
- **Command Line Basics:** Comfort with basic terminal commands.
- **A Computer/Laptop:** A working computer (Windows, macOS, or Linux) with an internet connection.
- **A Willingness to Learn:** Enthusiasm for building web applications.

Includes a full project, coding exercises, and a certificate of completion. Available in English and Hindi.

Course Curriculum Details

Module 1: Module 1: Getting Started with CodeIgniter 4
6 Lessons

1. 1. What is CodeIgniter? Why Choose CI4 for Rapid Development? **15min**

2. 2. Installation via Composer and Manual Setup Options **25min**

3. 3. Understanding the Directory Structure and Core MVC Pattern **20min**

4. 4. Introduction to `spark` Command-Line Tool **15min**

5. 5. Initial Configuration and Environment Setup (`.env`) **20min**

6. 6. Recap & Practical Task: Install CI4 and Run Your First Application **40min**

Module 2: Module 2: Core Concepts: Routing & Controllers
6 Lessons

1. 7. Handling HTTP Requests and Responses in CI4 **20min**

2. 8. Defining Routes: Basic, Parameters, and Named Routes **30min**

3. 9. Route Groups and Filters (Basic Introduction)   **25min**

4. 10. Creating Controllers and Their Methods   **25min**

5. 11. Controller Filters (Detailed Usage)   **20min**

6. 12. Recap & Practical Task: Implement Custom Routes and Controller Actions   **50min**

Module 3: Module 3: Views and Data Display
6 Lessons

1. 13. Creating and Loading Views   **20min**

2. 14. Passing Data from Controllers to Views   **25min**

3. 15. View Cells: Reusable View Components   **25min**

4. 16. Layouts and Partials for Consistent Design   **20min**

5. 17. Cell Caching for Performance   **15min**

6. 18. Recap & Practical Task: Build a Template Layout for Your Application   **45min**

Module 4: Module 4: Database Interaction with Query Builder
6 Lessons

1. 19. Database Configuration and Connecting to MySQL   **20min**

2. 20. Introduction to CodeIgniter's Query Builder   **25min**

3. 21. Running Basic CRUD Queries (Create, Read, Update, Delete)   **40min**

4. 22. Method Chaining and Advanced Query Builder Usage (Joins, Group By, Having) **35min**

5. 23. Running Raw SQL Queries   **15min**

6. 24. Recap & Practical Task: Implement CRUD Operations for a Data Table   **1hr**

Module 5: Module 5: Working with Models
7 Lessons

1. 25. Creating and Using Models (CodeIgniter's ORM-like Layer)   **25min**

2. 26. Using Model's Built-in CRUD Methods (`find`, `save`, `update`, `delete`)   **30min**

3. 27. Model Configuration (Table Name, Primary Key, Return Type)   **20min**

4. 28. Model Callbacks (beforeInsert, afterUpdate, etc.)   **25min**

5. 29. Data Formatting and Type Casting in Models   **20min**

6. 30. Working with Soft Deletes in Models   **15min**

7. 31. Recap & Practical Task: Create Models for a Blog Application   **1hr**

Module 6: Module 6: Form Handling & Validation
7 Lessons

1. 32. Working with Forms and the Form Helper   **25min**

2. 33. Using the Validation Library for Input Validation   **30min**

3. 34. Displaying Validation Errors in Views   **20min**

4. 35. Creating Custom Validation Rules and Messages   **25min**

5. 36. Cross-Site Request Forgery (CSRF) Protection   **20min**

6. 37. File Uploads: Handling Single and Multiple Files   **30min**

7. 38. Recap & Practical Task: Build a User Registration Form with Validation and File Upload   **1hr 15min**

Module 7: Module 7: Helpers, Libraries & Caching
8 Lessons

1. 39. Working with Built-in Helpers (URL, Form, File, Text, etc.)   **25min**

2. 40. Managing User State with the Session Library   **25min**

3. 41. Email Sending with the Email Library   **20min**

4. 42. Working with the Image Manipulation Library   **25min**

5. 43. Introduction to Caching (File Caching, Redis/Memcached overview)   **20min**

6. 44. Implementing Page and Query Caching   **25min**

7. 45. Creating Custom Helpers and Libraries   **25min**

8. 46. Recap & Practical Task: Implement Session-Based Login and Basic Caching   **1hr**

Module 8: Module 8: Security, Error Handling & Logging
6 Lessons

1. 47. Understanding CI4's Security Features Overview   **15min**

2. 48. Cross-Site Scripting (XSS) Prevention   **20min**

3. 49. Error Handling: Configuration and Display   **25min**

4. 50. Logging: Writing and Managing Log Files   **20min**

5. 51. Debugging Techniques (`dd()`, Debug Toolbar)   **20min**

6. 52. Recap & Practical Task: Implement Robust Error Handling and Basic XSS Protection   **45min**

Module 9: Module 9: Advanced Topics & Extending the Framework
5 Lessons

1. 53. Command-Line Tools: Beyond `spark serve`   **20min**

2. 54. Extending the Framework with Hooks (Deep Dive into Filters)   **30min**

3. 55. Custom Commands (Creating Your Own `spark` Commands)   **25min**

4. 56. Integrating Third-Party Libraries (Manual & Composer)   **20min**

5. 57. Recap & Practical Task: Create a Custom Command and a Global Filter   **50min**

Module 10: Module 10: Final Project - A Simple Blog Application
7 Lessons

1. 58. Project Setup and Database Schema Design (for Blog)   **30min**

2. 59. Building CRUD for Blog Posts with Models and Validation   **1hr 30min**

3. 60. Implementing User Authentication (Login/Registration)   **1hr**

4. 61. Adding Comments and User Interaction Features   **1hr**

5. 62. Integrating Basic Security and Error Handling   **45min**

6. 63. Final Project Review and Refinements   **1hr**

7. 64. Recap & Project Submission   **40min**

Module 11: Module 11: Deployment & Beyond
5 Lessons

1. 65. Preparing the Application for Production   **20min**

2. 66. Optimizing CodeIgniter 4 for Performance   **25min**

3. 67. Deploying a CodeIgniter 4 Application to a Web Server   **35min**

4. 68. Course Summary and Next Steps in Your CI4 Journey   **20min**

5. 69. Recap & Course Conclusion   **30min**

This curriculum is subject to minor adjustments to ensure the most up-to-date and effective learning experience.